Quick Manual for Viewing 3D-Maps with VCAT

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A. general instructions

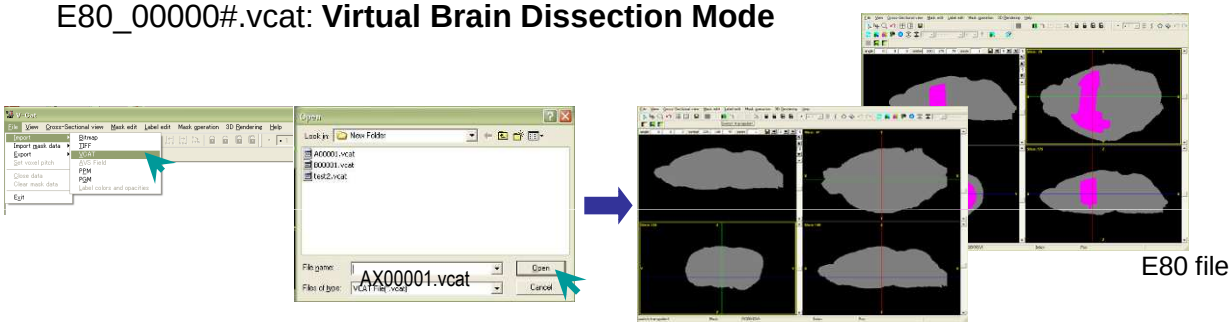
1) Download VCAT and unzip it

(In case VCAT Icon does not appear, right-click the saved file, open property and unblock)

2) Click an Icon  to open VCAT

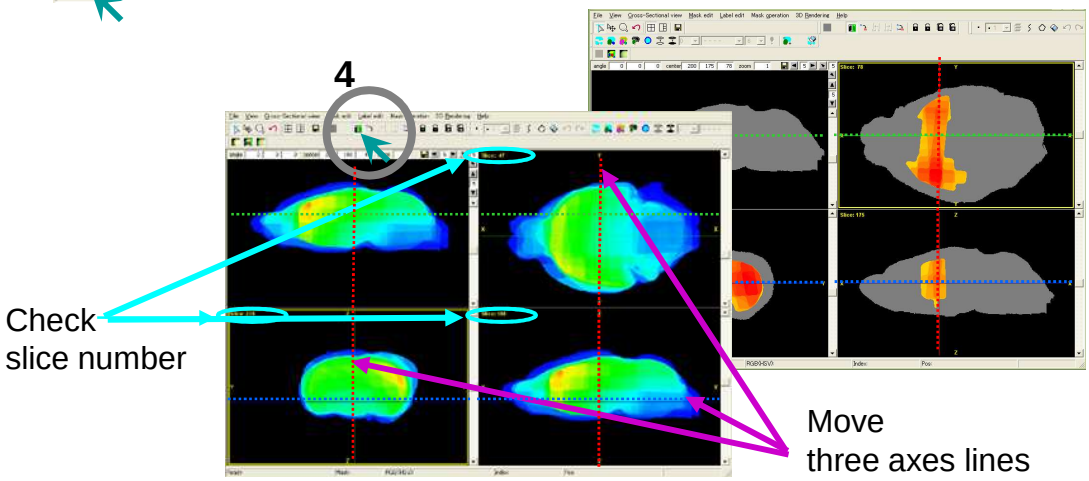
3) Open a VCAT file

AX_00000#.vcat : **Whole Brain Mode**
E80_00000#.vcat: **Virtual Brain Dissection Mode**



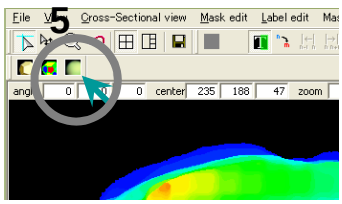
<Masked view>

4) Click  and unmask to see 2D-Section View

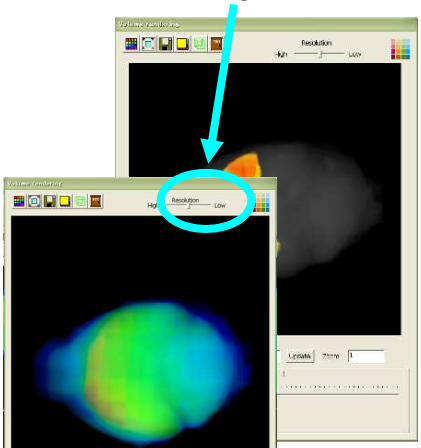


<2D-section View>

5) Click  and create 3D-View



Move to see in high resolution



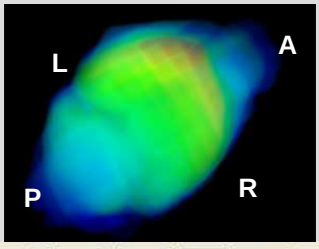
E80 file

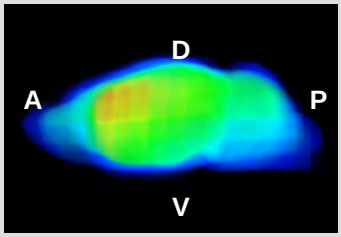
Type numbers and click “update”
(See example numbers below)
or mouse-over and drag to move the object

AX file

Examples

Whole Brain Mode

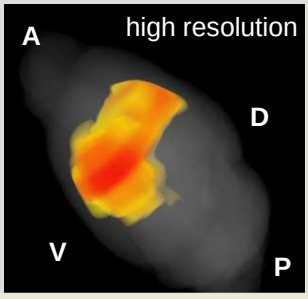


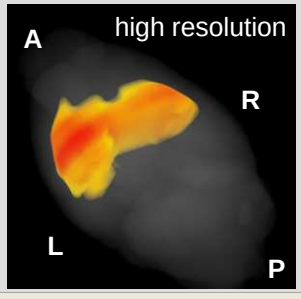


-15 -10 -150

90 0 0

Virtual Brain Dissection Mode



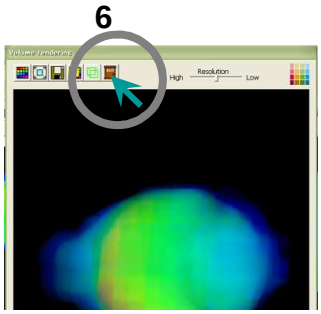


50 20 -45 1.4

30 -25 -50 1.4

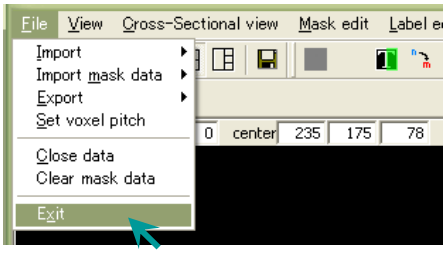
6) Click 

and return to 2D-Section View



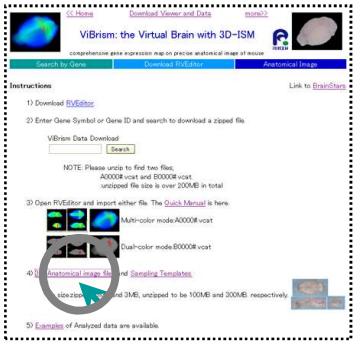
Note:
otherwise 2D-Section View can not be operated.
If you want to control 2D and 3D-Views in the same time, open another VCAT, please.

7) Click to exit

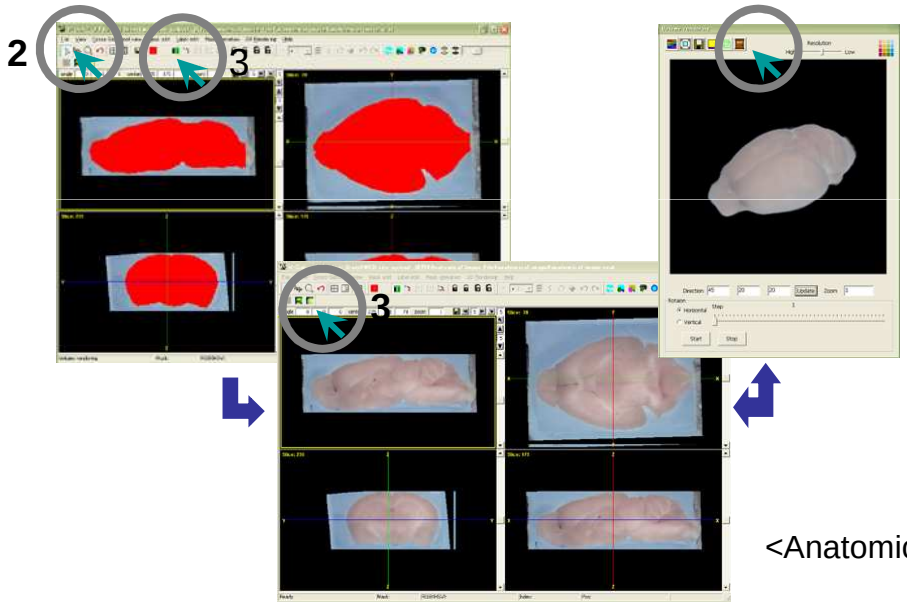


B. anatomical image map in Virtual Brain Dissection Mode

1) Download the anatomical image file and unzip it



2) Open the ‘anatomical image.vcat’ file with VCAT
3) Unmask and produce a surface 3D view by volume rendering.



*Please click ‘Exit’, when you would be back to 2D-Section View.

<Anatomical image map>

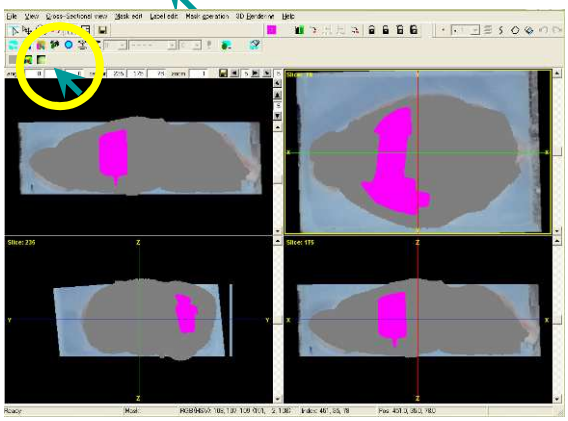
Now, you can see the whole brain image.

4) Import Mask data for a gene of your interest

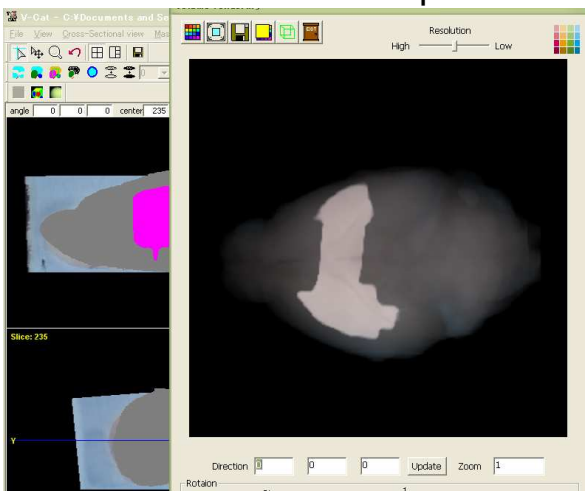
M80_######.msk

4

5) Click  and create 3D-View

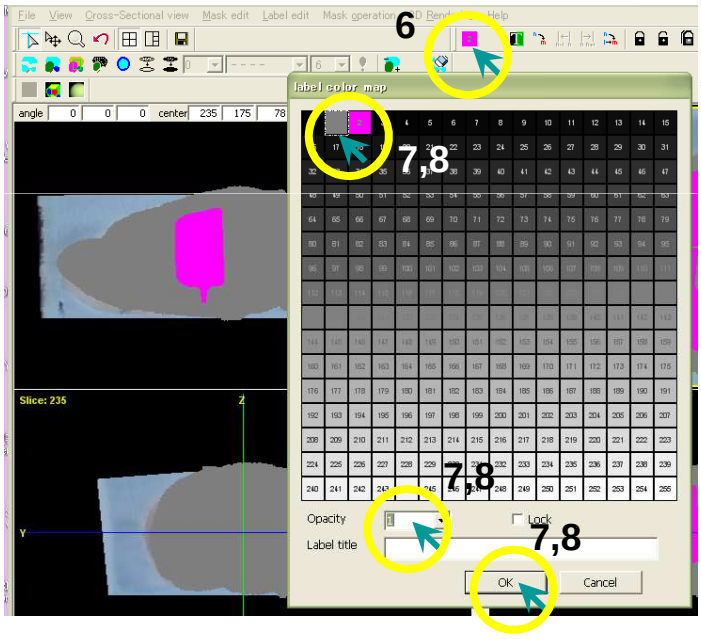


3D map



Change view as you like

6) Click  and open ‘label color map’



Set opacity of ‘label color map’ for

3D maps

1: 1

2: 6

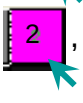
2D maps

1: 150

2: 0

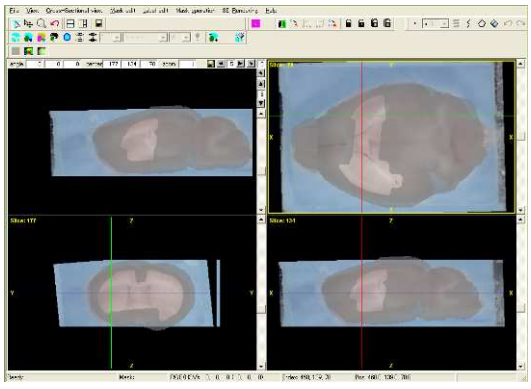
Sorry for your inconvenience, but
Please do 7) and 8) one by one!

7) Click  , input 150 in opacity and click OK

8) Click  , input 0 in opacity and click OK

Now, you can see 2D-Maps !

2D map



C. visualization of highly co-expressed areas of two genes

---Expression intensity of gene A in highly expressed area of gene B---

1) Download an AX_0000#.vcat file or E80_0000#.vcat of gene A
2) Download a M80_0000%.msk file of gene B

for 3D maps

3) Set opacity of 'label color map' for 3D maps

for **Whole Brain Mode** (AX file)

label 1: 1

2: 6

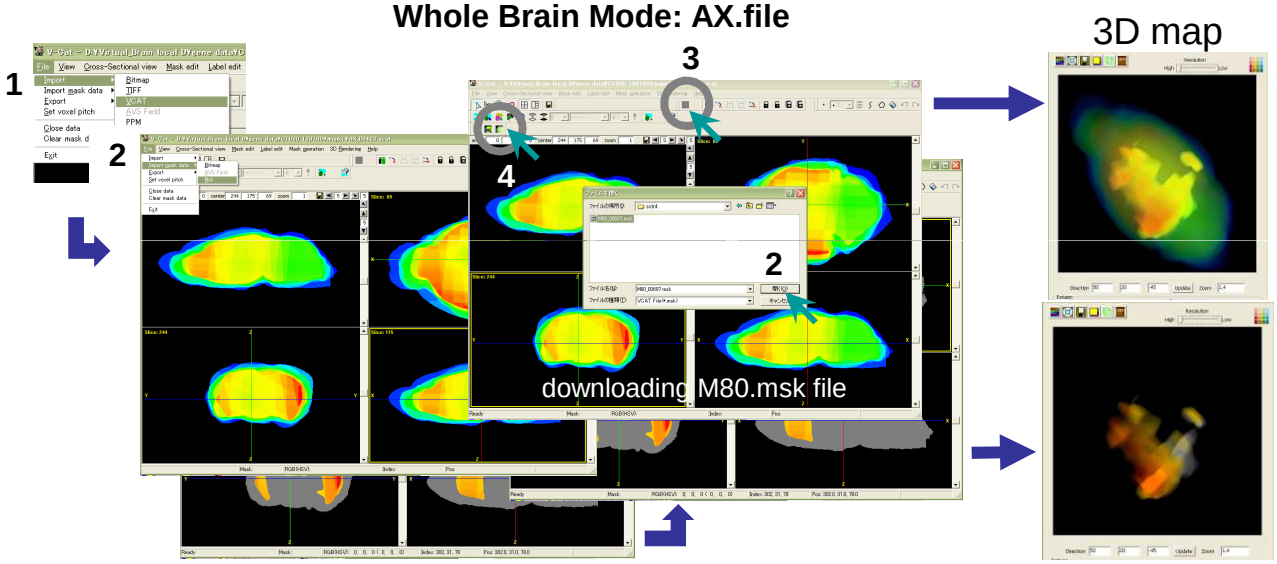
Virtual Brain Dissection Mode (E80 file)

label 1: 0

2: 6

4) Click  and create 3D-View

Whole Brain Mode: AX.file



Virtual Brain Dissection Mode: E80.file

for 2D maps

3) Set opacity of 'label color map' for 2D maps

for **Whole Brain Mode** (AX file) label

label 1: 200

2: 0

4) Click  and unmask to see 2D-Section View

2D map